

### **AMENDMENTS TO THE CLAIMS**

**Claim 1 (Original)** Method of manufacture of a piston for an internal combustion engine, the said piston being formed from a metal part cast in one piece, wherein heating of a billet is carried out so as to bring it to an intermediate temperature between its solidus temperature and its liquidus temperature, and that shaping thereof by thixoforging is carried out.

#### **Claims 2-16 (Canceled)**

**Claim 17 (New)** The method of Claim 1, wherein the piston is produced from carbon steel.

**Claim 18 (New)** The method of Claim 17, wherein the piston has a composition, in percentages by weight, of:

- $0.35\% \leq C \leq 1.2\%$
- $0.10\% \leq Mn \leq 2.0\%$
- $0.10\% \leq Si \leq 1.0\%$
- $traces \leq Cr \leq 4.5\%$
- $traces \leq Mo \leq 2.0\%$
- $traces \leq Ni \leq 4.5\%$
- $traces \leq V \leq 0.5\%$
- $traces \leq Cu \leq 3.5\%$
- $traces \leq Al \leq 0.060\%$
- $traces \leq Ca \leq 0.050\%$
- $traces \leq B \leq 100 \text{ ppm}$
- $traces \leq Ti \leq 0.050\%$
- $traces \leq Nb \leq 0.050\%$

the other elements being iron and conventional impurities resulting from the manufacture.

**Claim 19 (New)**      The method of Claim 18, wherein the piston includes up to 0.180% of S and one at least of the elements chosen from amongst up to 0.080% of Bi, up to 0.020% of Te, up to 0.040% of Se, up to 0.070% of Pb.

**Claim 20 (New)**      The method of Claim 1, wherein the piston is produced from hot-tooling steel.

**Claim 21 (New)**      The method of Claim 1, wherein the piston is produced from high-speed steel.

**Claim 22 (New)**      The method of Claim 1, wherein the piston is produced from stainless steel.

**Claim 23 (New)**      The method of Claim 1, wherein the piston is produced from cast iron.

**Claim 24 (New)**      The method of Claim 1, wherein the piston is produced from an alloy based on Fe-Ni.

**Claim 25 (New)**      The method of Claim 1, wherein the piston is produced from an alloy based on Ni-Co.

**Claim 26 (New)**      A method of making a piston for an internal combustion engine comprising:  
                         heating metal material so as to bring the material to an intermediate temperature between its solidus temperature and its liquidus temperature; and  
                         shaping the metal material by thixoforging the metal material at the intermediate temperature so as to form the piston.

**Claim 27 (New)**      The method of claim 26, wherein the metal material is steel.